

CLAIMS

What is claimed is:

1. A method of manufacturing an electric motor, comprising:
5 disposing a stator having a plurality of stator leads into a lead separating assembly;
gathering the plurality of stator leads together into a bundle; and
driving a lead separator through the stator into engagement with the plurality of
stator leads gathered together to separate each of the plurality of stator leads gathered
together.

10 2. The method as recited in claim 1, wherein disposing comprises securing the
stator to a pallet adapted to position the stator within a stator lead separating device.

15 3. The method as recited in claim 1, wherein the plurality of stator leads extend
freely from the stator.

4. The method as recited in claim 3, wherein gathering comprises placing the
plurality of stator windings extending freely from the stator into a lead collector and rotating
the lead collector to wind the stator leads together.

20 5. The method as recited in claim 1, wherein gathering comprises securing a
clamp to the plurality of stator leads gathered together.

25 6. The method as recited in claim 5, wherein gathering comprises utilizing the
clamp to apply tension to the plurality of stator leads gathered together.

7. The method as recited in claim 1, wherein driving comprises utilizing a
motorized apparatus to drive the lead separator through the stator.

8. The method as recited in claim 1, further comprising providing a lead separator with a plurality of outwardly extending teeth disposed circumferentially around the lead separator, wherein each tooth is adapted to penetrate the plurality of stator leads gathered together and to separate each the plurality of stator leads gathered together.

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9. The method as recited in claim 8, wherein providing comprises providing a lead separator adapted to individually restrain each of the plurality of stator leads gathered together.

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10. The method as recited in claim 9, wherein the plurality of teeth cooperate to direct each of the plurality of stator leads towards the flexible material.

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11. The method as recited in claim 8, wherein providing comprises identifying the number of stator leads in the plurality of stator leads and providing a lead separator with the same number of teeth as the number of stator leads.

12. The method as recited in claim 1, further comprising securing the lead separator to a stator clamp secured to the stator to maintain each stator lead separated.

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13. The method as recited in claim 12, further comprising removing the stator, stator clamp, and lead separator from the lead separating device for movement to another electric motor manufacturing device.

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14. A method of separating stator winding leads of an electric motor during manufacture, comprising:

operating a rotating lead collector to gather a plurality of stator winding leads extending from a stator into a bundle; and

driving a lead separator through the stator into the bundle of stator winding leads to separate each stator winding lead tooth of the multi-toothed lead separator between a pair of stator winding leads in the bundle of stator winding leads.

5 15. The method as recited in claim 14, comprising driving a clamp against the bundle of stator winding leads to maintain the bundle of stator windings bundled.

10 16. The method as recited in claim 14, wherein driving a multi-toothed lead separator into the bundle of stator winding leads comprises driving the lead separator through the stator core.

 17. The method as recited in claim 14, comprising affixing the stator core to a pallet.

15 18. The method as recited in claim 14, comprising securing a lead identifier to each of the stator winding leads.

 19. A method of manufacturing an electric motor, comprising:
 operating a rotating lead collector to collect a plurality of stator winding leads
20 extending from a stator into a bundle;
 driving a lead separator into the bundle of stator leads to individually separate each of the plurality of stator leads gathered together; and
 securing the lead separator to the stator to maintain the plurality of stator leads separated.

25 20. The method as recited in claim 19, comprising securing the stator to a pallet.

21. The method as recited in claim 20, comprising disposing the stator and pallet into a lead separating assembly to enable the lead separator to be driven into the stator.

5 22. The method as recited in claim 21, comprising removing the stator, pallet, and lead separator from the lead separating mechanism after securing the lead separator to the stator to maintain the plurality of stator leads separated.